2011-03-17 Thursday Morning Notes

Thursday, March 17, 2011
6:00 AM

On-call

- Monday/Tuesday: Al
- Wednesday/Thursday: Tony
- Friday: DVM
- Saturday: Vladimir
- Sunday: Keith
- Monday: Steve

Stacking and Transfers Numbers

- Stacked 26.1mA/hr with a production of 21.96 pbars/Mp with 8.04 Tp on target.
- Unstacked 546mA in 66 transfers over 21 sets with an overall efficiency of 93.7%
    - If we remove the transfers from over 31mA, the overall efficiency becomes 94.5%
    - We are still down 2% overall (believed to be MI efficiency issue being worked on by MI experts)

Operational Happenings of Note

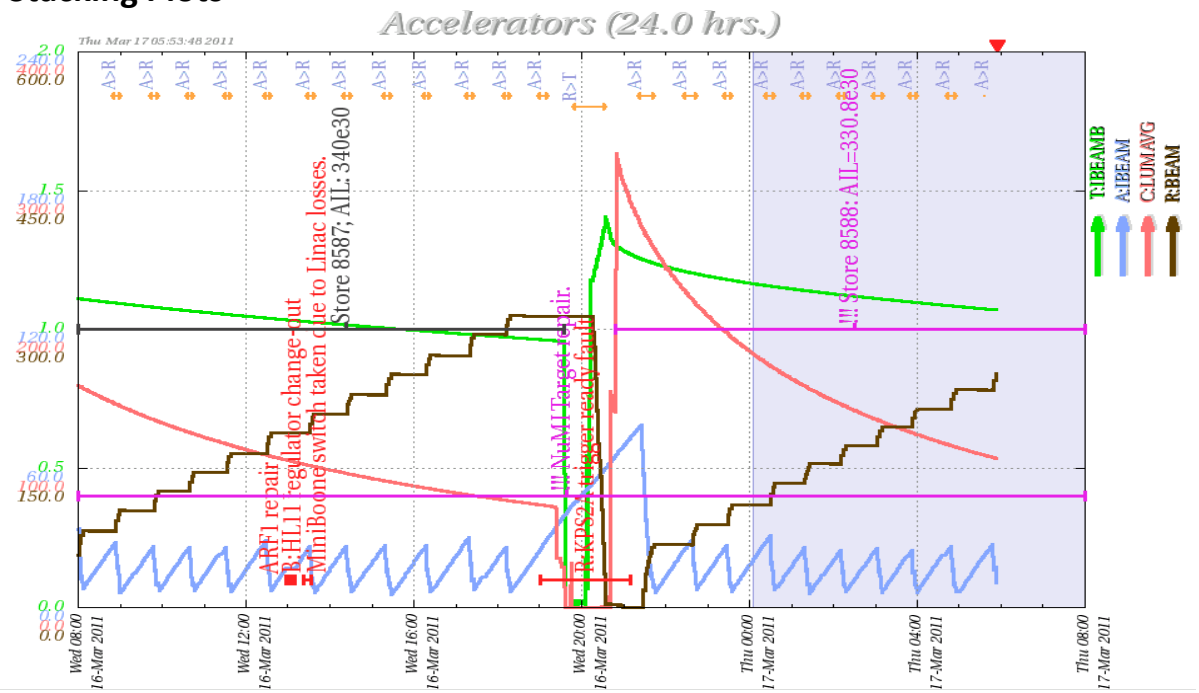
- ARF1 driver power supply fan was replaced. This fixed the problem we were having with periodic ARF1 trips.
- Dump Water skid
    - Remote camera hardware ready for installation in water cage.
    - Made-up water to the dump water reservoir five times in the last 24 hours.
- DRF1-7 still has periodic trips, but not as frequent.
- A:BS309 is still behaving. The shunt is running with an 0.75A offset, but is holding. Bernie is ready for repairs if it were to fail.

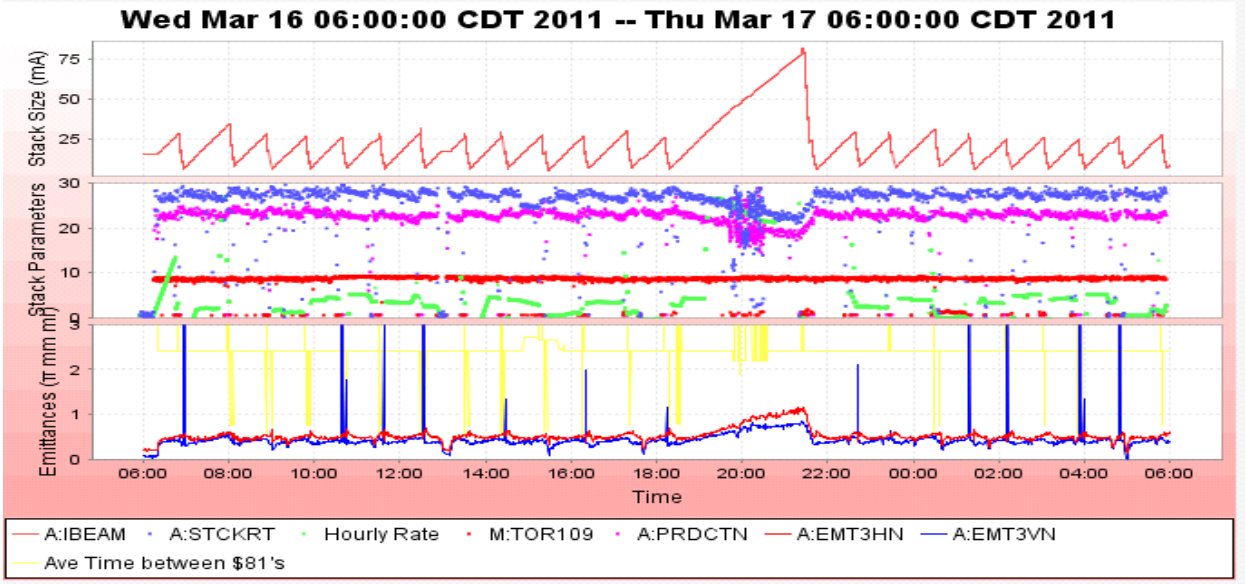
Java Numbers (6am to 6am)

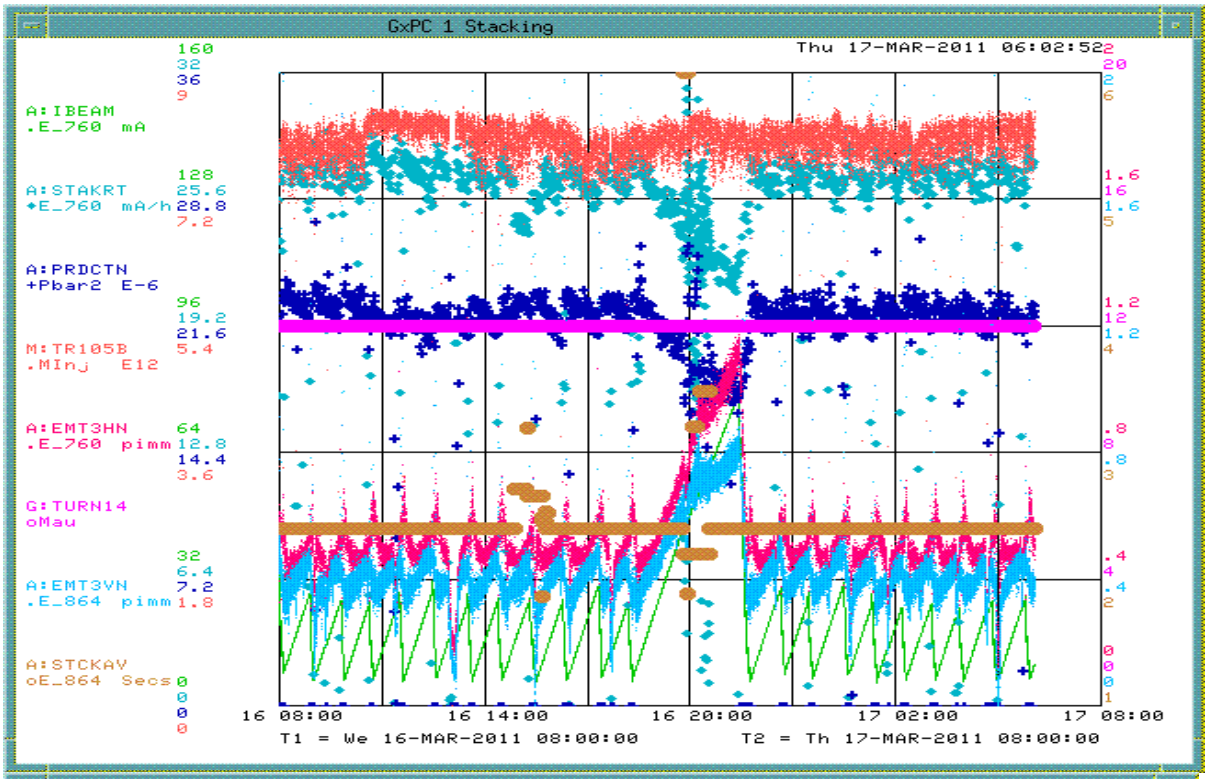
- Stacking
    - Pbars stacked: 591.78 E10
    - Time stacking: 23.38 Hr
    - Average stacking rate: 25.31 E10/Hr
- Uptime
    - Number of pulses while in stacking mode: 34641
    - Number of pulses with beam: 33433
    - Fraction of up pulses was: 96.51%
- The uptime's effect on the stacking numbers
    - Corrected time stacking: 22.56 Hr
    - Possible average stacking rate: 26.23 E10/Hr
    - Could have stacked: 613.16 E10/Hr
- Recycler Transfers
    - Pbars sent to the Recycler: 588.77 E10
    - Number of transfers : 72
    - Number of transfer sets: 23
    - Average Number of transfer per set: 3.13
    - Time taken to shoot including reverse proton tuneup: 00.25 Hr
    - Transfer efficiency: 93.34%
- Other Info

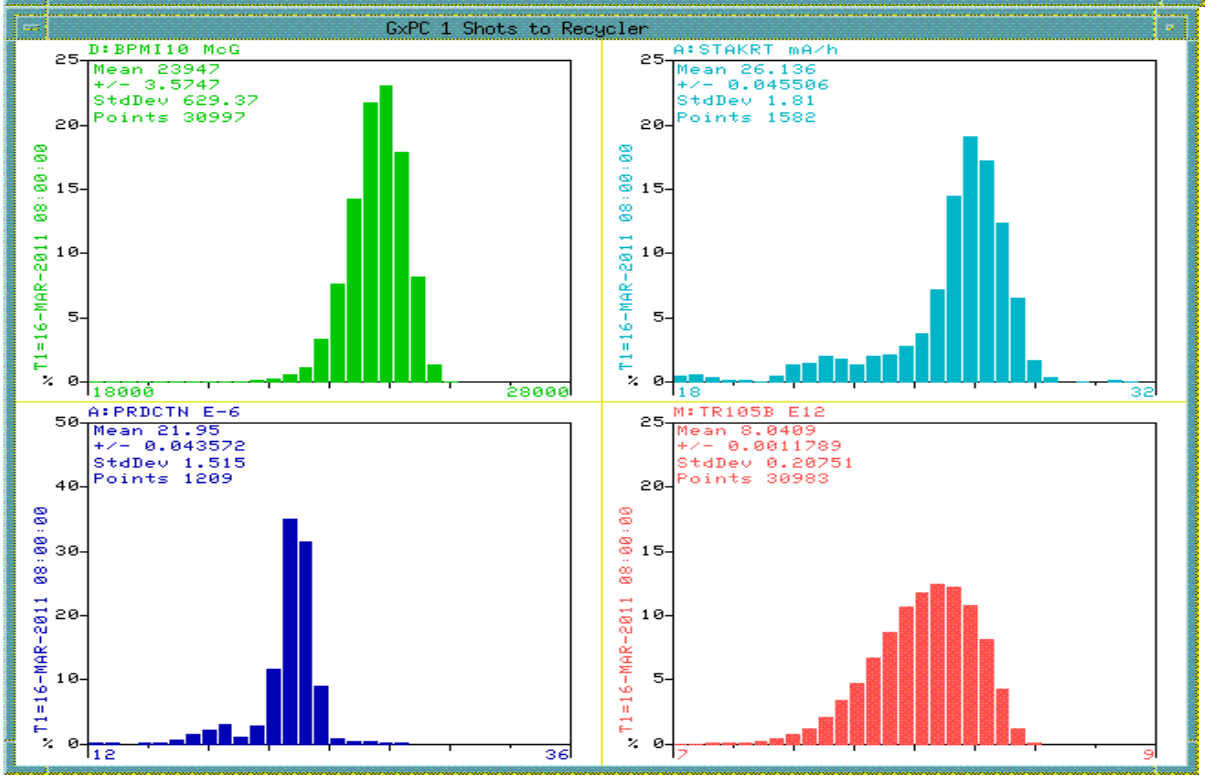
- Average POT : 8.02 E12
- Average production: 22.06 pbars/E6 protons

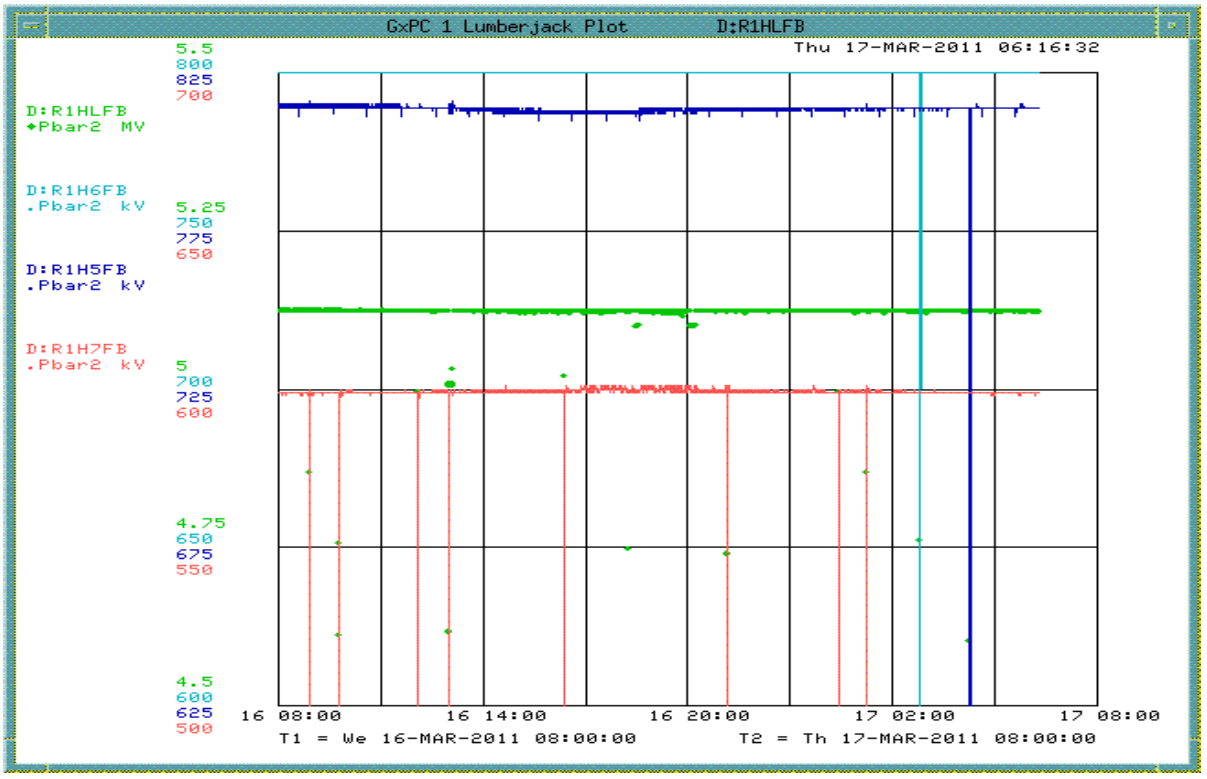
Stacking Plots



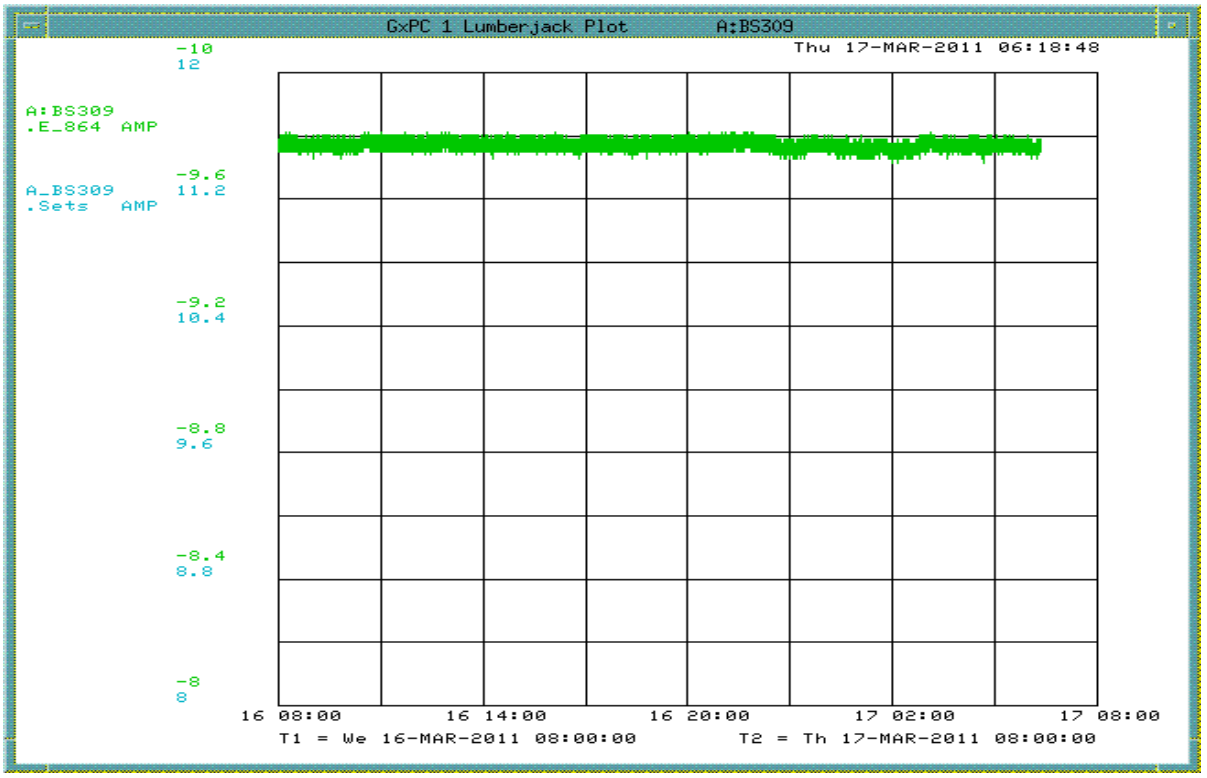



GxPC 1 Stacking
Thu 17-MAR-2011 06:02:52
A:IBEAM .E_760 mA
A:STAKRT •E_760 mA/h
A:PRDCTN +Pbar2 E-6
M:TR105B .MInj E12
A:EMT3HN .E_760 pimm
G:TURN14 oMau
A:EMT3VN .E_864 pimm
A:STCKAV oE_864 Secs
16 08:00
16 14:00
16 20:00
17 02:00
17 08:00
T1 = We 16-MAR-2011 08:00:00
T2 = Th 17-MAR-2011 08:00:00

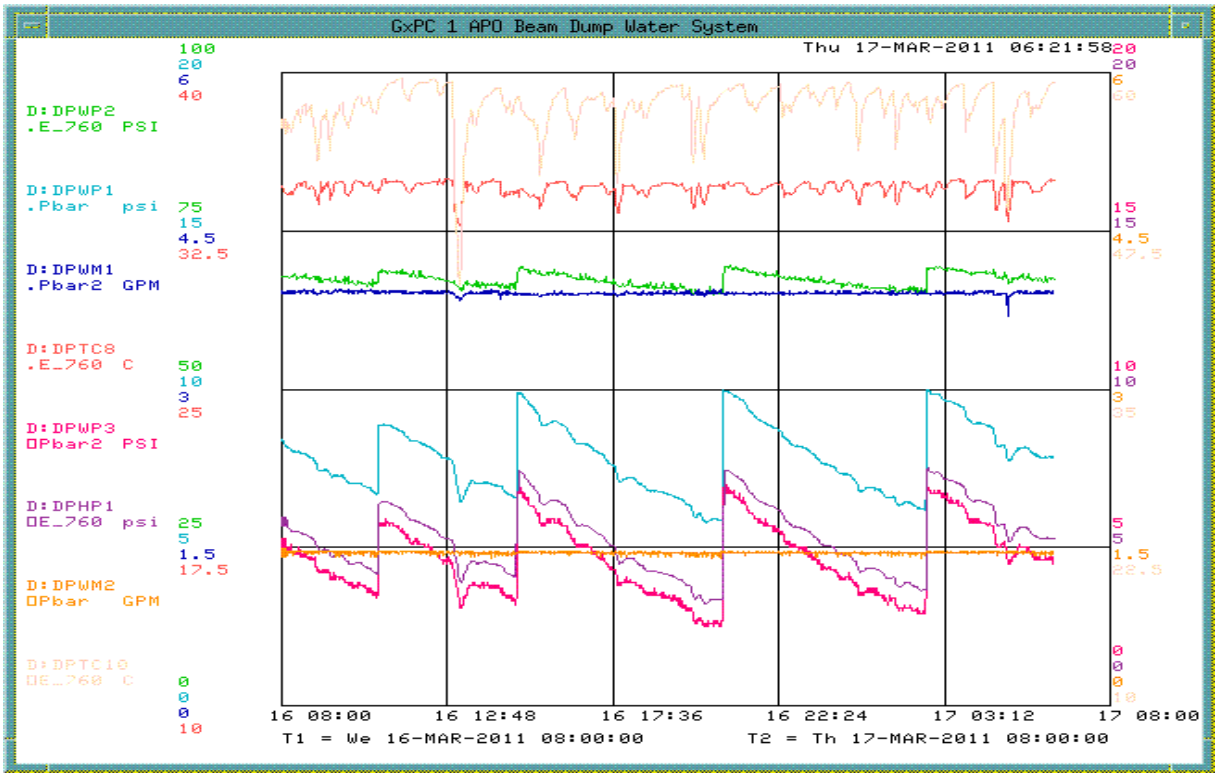

GxPC 1 Shots to Recycler
D:BPMI10 McG
Mean 23947
+/- 3.5747
StdDev 629.37
Points 30997
A:STAKRT mA/h
Mean 26.136
+/- 0.045506
StdDev 1.81
Points 1582
A:PRDCTN E-6
Mean 21.95
+/- 0.043572
StdDev 1.515
Points 1209
M:TR105B E12
Mean 8.0409
+/- 0.0011789
StdDev 0.20751
Points 30983
T1=16-MAR-2011 08:00:00
%



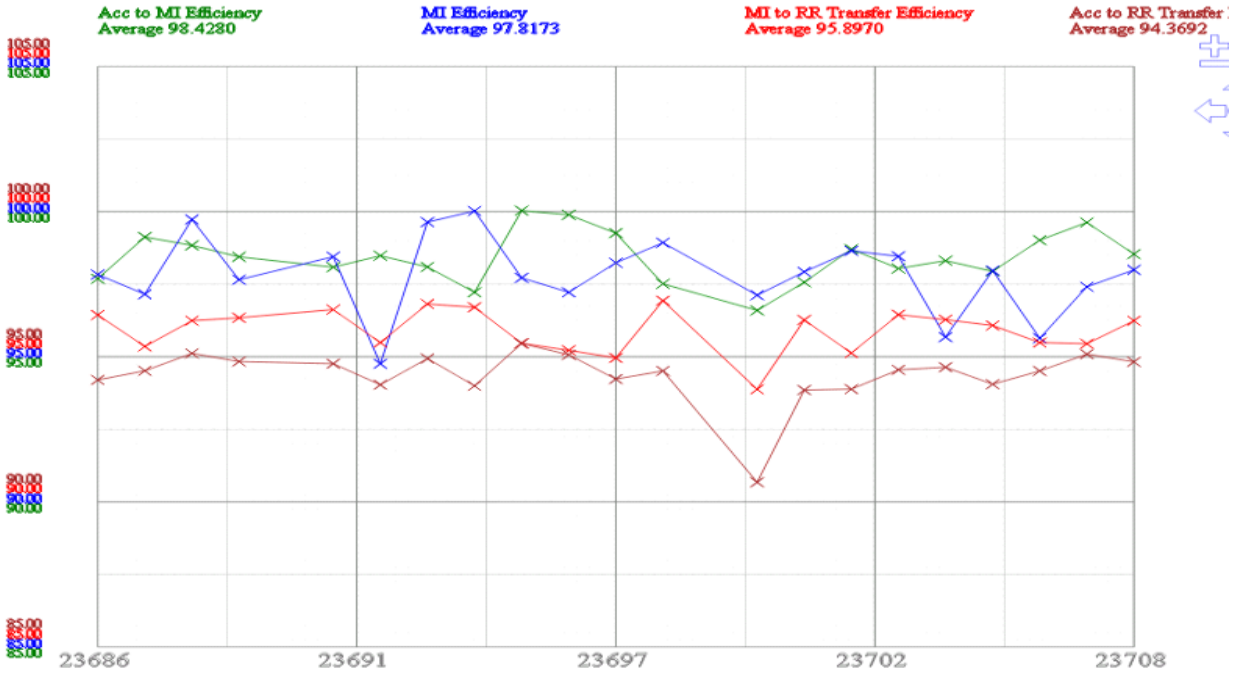
DRF1-7



A:BS309 is still ok



Transfers Plots (6am to 6am)



Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time		Column 21 Number_20_A:IBEAMB sampled on $91 (A:BEA	Column 22 Number_21_A:IBEAMB sampled on $94 (A:BEA	Unstacked (mA)	Column 23 Number_22_R:BEAMS (R:BEAME0[0]) pre xfer E10	Column 24 Number_23_R:BEAM (R:BEAME0[1]) post xfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Transfers	Sets	Column 5 Number_4_Acc Horizontal Emittance	Column 6 Number_5_Acc Vertical Emittance	Column 8 Number_7_Acc Longitudinal Emittance
	Totals =>				545.69			511.03	93.65%	98.30%	95.96%	94.33%	66	21	5.0702	3.867	1.965
	Daily Average =>				545.69			511.03					66	21			
23708	Thursday, March 17, 2011	4:48	26.54	6.49	22.59	214.17	235.34	21.41	94.77%	98.76%	95.95%	94.76%	3	1	4.865	3.898	1.99
23707	Thursday, March 17, 2011	3:52	24.75	6.20	21.07	194.67	214.50	20.06	95.22%	99.68%	97.16%	96.84%	3	1	4.664	3.561	1.991
23706	Thursday, March 17, 2011	3:02	25.86	6.28	22.04	174.38	194.94	20.81	94.41%	98.43%	94.30%	92.83%	3	1	4.88	3.929	1.963
23705	Thursday, March 17, 2011	2:10	24.84	6.42	21.01	155.09	174.63	19.76	94.04%	98.59%	95.71%	94.36%	3	1	5.107	3.74	1.985
23704	Thursday, March 17, 2011	1:19	26.00	5.76	22.46	134.36	155.34	21.25	94.60%	98.58%	94.54%	93.20%	3	1	4.765	3.673	1.964
23703	Thursday, March 17, 2011	0:30	31.29	7.76	25.65	110.75	134.64	24.16	94.17%	97.93%	96.47%	94.47%	3	1	5.188	4.106	1.962
23702	Wednesday, March 16, 2011	23:28	27.29	6.81	22.68	89.83	110.92	21.28	93.85%	99.05%	97.53%	96.61%	3	1	4.96	3.815	1.995
23701	Wednesday, March 16, 2011	22:39	29.62	7.78	24.03	67.72	90.02	22.55	93.86%	98.49%	95.94%	94.49%	3	1	5.385	4.143	1.98
23700	Wednesday, March 16, 2011	21:26	79.27	5.96	79.71	0.33	68.22	70.88	88.93%	96.45%	93.17%	89.86%	6	1	7.3813	4.342	1.835
23698	Wednesday, March 16, 2011	18:11	26.16	6.20	22.07	294.72	315.34	20.89	94.64%	97.75%	97.12%	94.94%	3	1	5.068	3.617	1.979
23697	Wednesday, March 16, 2011	17:19	30.43	7.25	25.36	271.91	295.44	23.91	94.26%	98.90%	97.08%	96.01%	3	1	5.109	4	1.958
23696	Wednesday, March 16, 2011	16:18	26.84	6.61	22.29	251.75	272.59	21.15	94.90%	99.39%	96.84%	96.25%	3	1	5.017	3.866	1.967
23695	Wednesday, March 16, 2011	15:19	27.23	5.65	24.03	229.66	252.25	22.90	95.31%	99.87%	98.17%	98.04%	3	1	4.584	3.552	1.939
23694	Wednesday, March 16, 2011	14:24	27.09	6.44	22.80	208.92	230.09	21.43	93.98%	97.73%	97.00%	94.80%	3	1	4.943	3.768	1.959
23693	Wednesday, March 16, 2011	13:31	26.45	6.03	22.37	188.25	209.27	21.25	94.97%	98.19%	97.51%	95.75%	3	1	4.934	3.477	1.97
23692	Wednesday, March 16, 2011	12:29	29.44	7.08	24.53	166.11	188.74	22.99	93.73%	98.55%	93.82%	92.45%	3	1	5.248	4.025	1.965
23691	Wednesday, March 16, 2011	11:32	26.23	6.29	22.19	145.66	166.40	21.00	94.65%	98.18%	97.66%	95.88%	3	1	5.136	3.944	1.99
23689	Wednesday, March 16, 2011	9:48	26.67	6.48	22.27	104.85	125.75	21.09	94.71%	98.59%	96.08%	94.72%	3	1	5.001	3.626	1.985
23688	Wednesday, March 16, 2011	8:54	28.42	6.46	23.88	82.56	105.03	22.66	94.92%	98.96%	97.94%	96.92%	3	1	4.724	3.823	1.969
23687	Wednesday, March 16, 2011	8:01	34.26	8.09	28.30	56.30	82.73	26.68	94.28%	98.89%	96.23%	95.17%	3	1	5.182	4.189	1.954
23686	Wednesday, March 16, 2011	6:50	28.39	6.36	24.36	33.72	56.45	22.91	94.03%	97.85%	95.74%	93.68%	3	1	4.69	3.51	1.957

All Transfers

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	Totals =>				412.03			389.30	94.48%	98.64%	96.45%	95.14%	66	18	4.9489	3.776	1.973
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Remove transvers > 31mA